

REMARKS

This Application has been carefully reviewed in light of the Final Office Action mailed July 8, 2003. At the time of the Final Office Action, Claims 1-11 were pending in this Application. Claims 1-11 were rejected.

Rejections under 35 U.S.C. § 112

Claims 1-11 were rejected by the Examiner under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to point out and claim the subject matter which Applicants regard as the invention. Applicants have amended the Claims to overcome these rejections.

Rejections under 35 U.S.C. § 103

Claims 1-11 were rejected by the Examiner under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent 5,591,912 issued to Michael J. Spisak et al. (hereinafter "Spisak").

Claim 1 has been amended to more clearly distinguish the present invention from the teachings of Spisak. It is now explicitly clear from Claim 1 that the two probes are on the same side of the target irregularity. The time shifting is based on the roundtrip travel time over the distance between the two probes. In other words, if the distance between the two probes is Δx , then the time shifting is the time it takes to travel $2\Delta x$. (Page 10, lines 24 - 27).

Spisak teaches the use of a first probe on one side of an irregularity and a second probe on the other side of the irregularity. Spisak teaches that the preferred embodiment is to place the transceivers equidistant from the inspection area. (Col. 6, lines 30 - 35).

It is true that Spisak teaches that if transceivers are positioned at different distances from the inspection area, the plots of the reflected signals may be overlaid.

Nevertheless, Spisak does not teach or suggest placing the transceiver on the same side of the inspection area. The invention of Spisak is directed to distinguishing defects from deposits.

If the probe 10 of Spisak were placed so that both probes were placed on the same side of the defect, the invention of Spisak would not work. Neither transceiver would be "pointed" at the defect. In order for probe 10 to work, the inspection area must be between

the transceivers. Furthermore, Spisak does not teach or suggest redesigning probe 10 so that the transceivers may be placed on the same side of the inspection area. Spisak consistently teaches that the signals from the transceiver approach the inspection area from opposing directions.

The invention is not obvious from the teaching in Spisak, that the reflected sounds may be overlaid. To the contrary, the invention is a non obvious improvement of that general concept. The present invention uses time shifting representing the distance between the two probes. In contrast, Spisak shifts the signals so that the overlaid signals represent equal distance of the two transceiver from the defect.

CONCLUSION

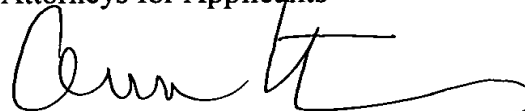
Applicant appreciates the Examiner's careful review of the application. Applicant has made an earnest effort to place this case in condition for allowance in light of the amendments and remarks set forth above. For the foregoing reasons, Applicant respectfully requests reconsideration of the rejections and full allowance of the claims as amended.

The Commissioner is hereby authorized to charge any fees or credit any overpayments to Deposit Account No. 50-2148 of Baker Botts L.L.P.

If there are any matters concerning this application that may be cleared up in a telephone conversation, please contact Applicants' attorney at 512.322.2634.

Respectfully submitted,

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